

Pfeiffer, Jane K - DNR

From: Pfeiffer, Jane K - DNR
Sent: Friday, December 2, 2022 1:01 PM
To: Robert Reineke; Shane LaFave
Cc: Hedman, Curtis J - DHS; Mylotta, Pamela A - DNR; Que El-Amin; Pratap Singh
Subject: RE: Community Within the Corridor West Block (02/41-587376) - Immediate Action Required

Importance: High

Greetings,

Thank you for presenting the vapor work plan in a timely manner. The DNR reviewed the notification work plan with DHS and has the following time-critical comments:

Notification requirements:

Trichloroethylene (TCE) was identified greater than its residential vapor action level (VAL) on 09/12/22, within the Community Within the Corridor West Block. The DNR was notified of these VAL exceedances on 11/11/22 and 11/23/22. Per Wis. Admin. Code §§ NR 714.07 & NR 716.14, considering the threats to public health, safety and welfare associated with the TCE VAL exceedances, **a notification must be sent to all tenants by 12/06/22**, as outlined in my email from 11/29/22. These notifications must be sent in a hard copy format to all tenants occupying the residential spaces within the West Block buildings. Email notifications can be used to supplement these hard copy notifications, but cannot be exclusively used as your notification tool. Copies of the notifications and attachments must be submitted to the DNR.

Vapor investigation requirements:

Per Wis. Admin. Code § NR 716.01, additional vapor investigation is required to determine the source and degree and extent of the indoor air contamination. At this time, the source of the TCE in indoor air has not been determined and must be prioritized without further delay as it is necessary regardless of the current passive sampling results. The results of this required source assessment can be used to determine what actions must be taken to modify the existing vapor mitigation system (VMS) to ensure protective conditions are established within the site buildings, per Wis. Admin. Code § NR 718.11. The DNR strongly suggests utilizing the a portable gas chromatograph/electron capture detector GC/ECD unit sample method as soon as possible to assess the source of this contamination. K. Singh indicates that contaminated indoor air may be traveling from the presently un-mitigated Buildings 4 and 5 through seven pipes running from Building 5 to Building 6, which may be the source of the TCE in indoor air in Buildings 6, 7, 8A and 8B. To investigate this potential source area, indoor air samples must be collected on either side of these pipes prior to modifying the building layout/construction in this area so that the potential source/preferential pathways can be assessed.

Additional information required:

Provide the following additional information/clarifications. This info can be provided in a response email and should be submitted by 12/09/22:

- Provide the sample duration for the 11/02/22 indoor air sampling event.
- Discuss the purpose of the pipes detailed above.
- Provide additional information on the TCE detected in outdoor air. More specifically, discuss the potential source(s) and where it is believed to be entering the building and what this implies about the TCE in indoor air within the site buildings.
- Provide an update on the status of Buildings 4 & 5, including whether they are currently occupied and an anticipated schedule for when the VMS will be operational.

Please review my email from 11/29/22 for additional details on the acute health risks associated with TCE and the next steps that are required, per the Wis. Admin. NR 700 Code series. Do not hesitate to reach out should you have any questions.

Thank you, Jane

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Jane Pfeiffer

Phone: (414) 435-8021

jane.pfeiffer@wisconsin.gov

From: Robert Reineke <rreineke@ksinghengineering.com>
Sent: Thursday, December 1, 2022 6:23 PM
To: Pfeiffer, Jane K - DNR <jane.pfeiffer@wisconsin.gov>; Shane LaFave <shane@roerscompanies.com>
Cc: Hedman, Curtis J - DHS <Curtis.Hedman@dhs.wisconsin.gov>; Mylotta, Pamela A - DNR <Pamela.Mylotta@wisconsin.gov>; Que El-Amin <que@scott-crawford.com>; Pratap Singh <psingh@ksinghengineering.com>
Subject: RE: Community Within the Corridor West Block (02/41-587376) - Immediate Action Required

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Hello Jane,

Thank you for contacting us.

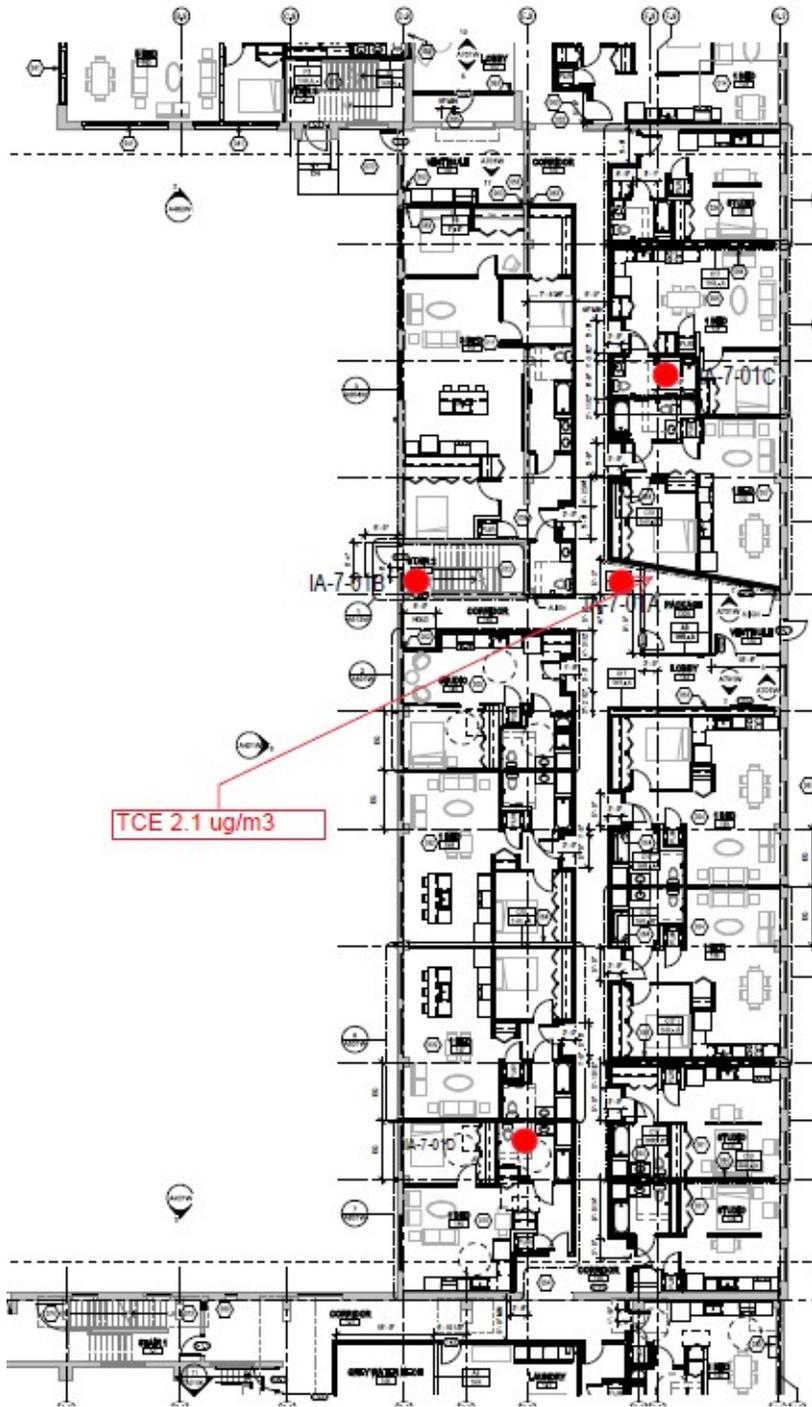
At this point, we do not concur with the DNR that TCE exceeds VALs as we performed additional sampling after the Commissioning Report was submitted. Some background:

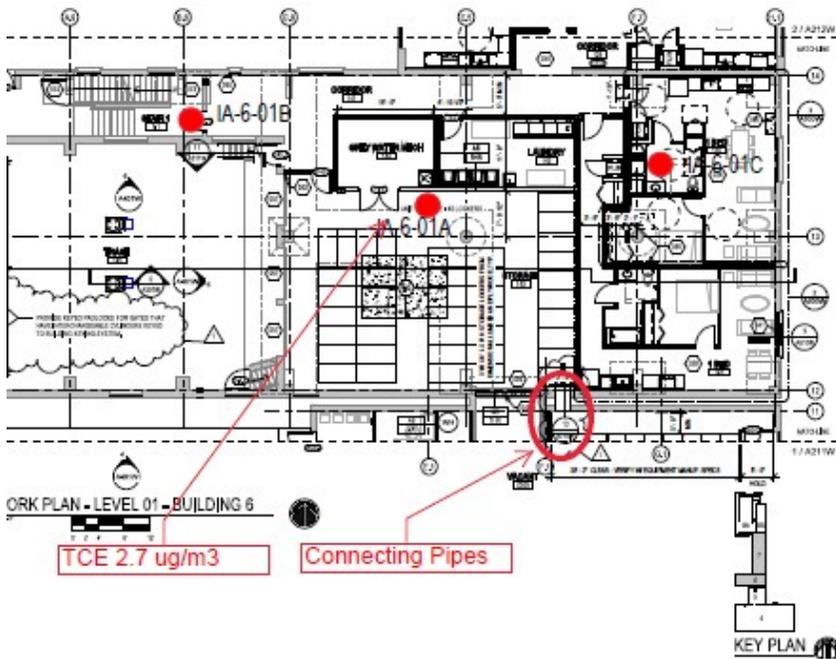
The second round of commissioning was performed using Passive Samplers in September 2022.

Three results were reported exceeding the VAL for TCE.

The sample IA-6-01A (Storage Room # 142) where a concentration of 2.7 ug/m³ was detected, Hallway sample IA-7-01A where a concentration of 2.1 ug/m³ was detected, and Hallway sample IA-8B-01B where a concentration of 2.1 ug/m³ was detected.

Locations of the Air Samples are shown below.

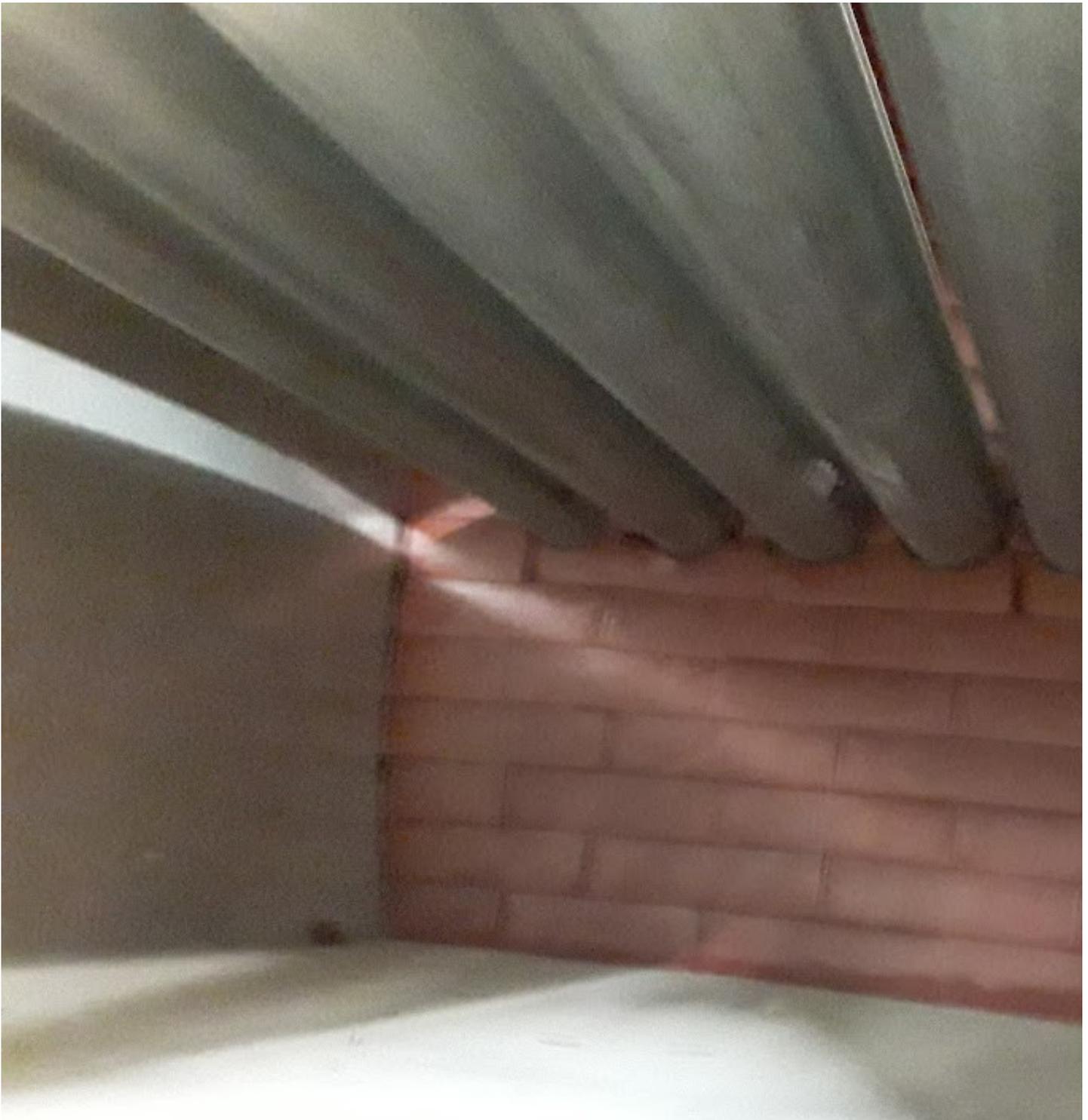




Results were submitted to WDNR in a status report dated November 1, 2022. However, outside air had a TCE concentration of 0.29 ug/m³. Additional air sampling, consisting of 3 Summa Canister, was performed in the Hallway, samples collected at south end (IA-1-WB), middle (IA-2-WB), and north end (IA-3-WB), near IA-8B-01B on November 2, 2022. The Summa canisters collected on November 2, 2022 were all less than 0.237 ug/m³ for TCE demonstrating compliance with VALs. Please see the lab report and a figure showing the location of sampling and results attached.

We believe that Buildings 7 and 6 will all show a similar decrease for TCE in indoor air and comply with VALs. We commenced with our 3rd round of commissioning sampling on November 30, 2022 as scheduled. We request that WDNR consider the Summa results and the 3rd round of commissioning results before concluding that indoor air is impacted with TCE.

Nevertheless, when passive sampling was performed, an inspection was performed for potential routes of entry. The storage room appears to be the potential entry point into the building. Inspecting the storage room, there is a small tunnel containing 7 pipes connecting two Buildings 4 and 5. Given that the basement of building 6 did not exceed VALs nor did 2nd floor samples, this is likely the source of the TCE as the vapor mitigation system is not operating in Building 4 and 5 yet. See a photo of the connection below.



There appear to be gaps in the fire bricks. Our understanding is that the fire bricks expand when heated sealing those gaps. We are reviewing whether the fire code allows for sealing between the bricks or whether it would affect the fire rating. If the fire code allows, we will take steps to seal the brick gaps as soon as possible.

In regards to WDNR's request to notify the tenants, we request an extension of the deadline until after a) the DNR has considered the Summa canister test results, and b) the DNR has had an opportunity to consider the third round of passive air sampling test results. With the Summa canister and background air data contradicting the passive air sampler test results, we believe that further evaluation of the data is needed and that notifying the tenants now will just create a panic that may not be based on continuing environmental conditions.

We propose the following action and schedules.

1. Passive air sampling will be completed on December 7, 2022 and shipped overnight to the lab for analysis.
2. We anticipate receiving results on December 22, 2022 by end of day. Within 24 hours of receipt we will analyze the data and report results to WDNR.
3. If TCE exceedances are reported, Community within the Corridor will notify the tenants via email within 3 working days of the WDNR being notified.
4. In the interim period between passive air sampling and the receipt of results, arrangements will be made for activated carbon air purifiers to be brought on site to remove TCE from indoor air. The activated carbon air purifiers will be deployed if the air results indicate TCE in air greater than VALs.
5. Arrangements will also be made in the interim period between passive air sampling and the receipt of results for the rental of a portable gas chromatograph/electron capture detector GC/ECD unit. If there are no VAL exceedances for TCE, a real time investigation will not be beneficial. If VAL exceedances are detected, then the GC/ECD unit investigation will be performed. The GC/ECD investigation will be performed prior to activating any interim measure such as installation of activated carbon air purifying units, and following activation of the units to determine their performance. We will update the WDNR on the availability of such units and the potential schedule for such an investigation.

We appreciate WDNR's involvement with this project. Please let us know if you would like to discuss this plan of action further.

Robert Reineke, PE

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From: Pfeiffer, Jane K - DNR <jane.pfeiffer@wisconsin.gov>
Sent: Tuesday, November 29, 2022 3:59 PM
To: Shane LaFave <shane@roerscompanies.com>; Robert Reineke <rreineke@ksinghengineering.com>
Cc: Hedman, Curtis J - DHS <Curtis.Hedman@dhs.wisconsin.gov>; Mylotta, Pamela A - DNR <Pamela.Mylotta@wisconsin.gov>; Que El-Amin <que@scott-crawford.com>; Pratap Singh <psingh@ksinghengineering.com>
Subject: Community Within the Corridor West Block (02/41-587376) - Immediate Action Required
Importance: High

Greetings Shane and Robert,

I just called and left voicemails for each of you concerning the subject site. The Department of Natural Resources (DNR) reviewed the second round of vapor mitigation system (VMS) commissioning data, collected in September 2022 and received on November 11 and 23, 2022, without a DNR review fee. The data was submitted on behalf of Community Within the Corridor Limited Partnership by K. Singh & Associated, Inc. The results show that trichloroethylene (TCE) was found at concentrations that equal or exceed its applicable vapor action level (VAL) of 2.1 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) at three separate locations. The DNR understands that these three locations are located in communal spaces/hallways, not within any residential units.

TCE poses a short-term (i.e., acute) health risk to certain populations when identified in indoor air at concentrations exceeding its VAL. More specifically, TCE presents an acute risk of fetal heart malformation that may occur when a

pregnant mother is exposed to TCE vapors in the first trimester of pregnancy, as indicated in Section 3.4.1 of DNR's Vapor Intrusion guidance, *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin*, [RR-800](#). Given that the Community Within the Corridor West Block consists of several adjoined, multi-level apartment buildings that include 1-3 bedroom units, it is likely that women of child-bearing years are present within the site buildings. Attached is a letter, dated March 25, 2021, from the Department of Health Services (DHS) to the DNR that presents additional information on acute health risks and recommended timeframes for follow-up actions that are required in Code to address threats to health. More specifically, DHS indicates that a VMS should be installed within two weeks and that women in the above-described sensitive demographic should be consulted about these TCE health risks in order for them to make informed decisions about whether to stay within the dwelling, given the TCE identified greater than its residential VAL at select locations. This notification of the data and health risk to the tenants by the responsible party (RP) is also required in Wis. Admin. Code §§ NR 714 & NR 716.14.

Considering the above-information, the following actions are required, per Wis. Admin. Code:

1. Wis. Admin. Code § NR 716.01 states that the purpose of site investigation is to determine the nature, degree and extent of contamination and to define the sources of contamination. Additional investigation of indoor air contamination is required to determine the source of the indoor air contamination along with its degree and extent. This investigation should occur as soon as possible. The DNR strongly suggests the additional investigation into the source of the TCE in indoor air be performed by continuous monitoring technology using a portable gas chromatograph/electron capture detector GC/ECD unit. This methodology allows for real-time data to be collected and close to 160 samples can be collected in a day. The primary goal is to quickly identify the source of the TCE and modify the VMS, if necessary, to assure it is protective of human health from the environmental contamination. **Present your plan and a schedule to accomplish this additional investigation to the DNR by Thursday, December 1, 2022.** The quick timeframe is due to the potential for acute risk. Attached is a document about the GC/ECD methodology and listed below is a contact person that can answer questions concerning this methodology :
 - a. [Vapor Safe® – The World Leader in Real Time Chemical Vapor and Monitoring Solutions](#)
 - b. Mark Kram, Ph.D., CGWP
Groundswell Technologies, LLC
7127 Hollister Ave., Suite 25A-108
Goleta, CA 93117 USA
805-899-8142 (office)
805-844-6854 (cell)
mark.kram@groundswelltech.com
www.groundswelltech.com
2. Per Wis. Admin. Code § NR 714.07, the responsible party (RP) shall conduct necessary notification activities considering the threats to public health, safety or welfare. This notification must include the following:
 - a. A description of the contamination;
 - b. The response actions that are planned or underway;
 - c. Phone numbers and addresses of persons to contact regarding the information. Contacts should include a representative for the RP and should also include myself as the DNR Project Manager and Curtis Hedman (cc'd on this email, (609) 287-4152, Curtis.Hedman@dhs.wisconsin.gov) as the Environmental Health contact with DHS.

Wis. Admin. Code § NR 716.14 requires the RP to report all sampling results to the occupants of the property. Due to the amount of data and the number of occupants, a summary of the data is recommended with contact information for tenants to obtain more details.

Wis. Admin. Code § NR 714.07 includes additional details on different methods of notifying that may be used. The DNR recommends that letters and/or leaflets be distributed to each of the tenants that are presently

occupying the building to ensure all occupants receive the notification. DNR and DHS are also able to assist with an informational meeting with your tenants following tenant notification, if desired.

Each of these Wis. Admin. Codes (NR 714.07 & NR 716.14) must be reviewed and implemented as you prepare and present your notifications for and to the occupants of the property. DNR strongly recommends DHS's, *TCE in Indoor Air*, fact sheet (document [here](#)) be included with your notifications along with DNR's guidance document, *What is Vapor Intrusion?*, [RR-892](#). **Notifications to all occupants should be sent by Tuesday, December 6, 2022.** Copies of the notifications and attachments must be submitted to the DNR.

Please do not hesitate to reach out should you have any questions concerning the information presented in this email.

Thank you, Jane

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Jane K. Pfeiffer

Hydrogeologist - Remediation & Redevelopment Program

Wisconsin Department of Natural Resources

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